

ABSTRACT OF THE DISCLOSURE

This invention concerns the discovery of two distinct PCA3 mRNA sequences. One of these sequences corresponds to a short PCA3 mRNA molecule whereas the other PCA3 RNA molecule is longer as it comprises an additional sequence between exon 3 and exon 4a. The short RNA is associated with prostate cancer whereas the long RNA sequence is associated with a non-malignant state of the prostate. Based on the differential expression levels of these two PCA3 RNA sequences, protocols for the diagnosis of prostate disease are provided. The invention also relates to therapeutic approaches to prostate cancer.